

10083246-072608 #5

Atty. Docket No.: 1133/2002

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Jones, et al.
Serial No.: 10/083,246
Filed: February 26, 2002
Entitled: Compositions and Methods for
Genetic Analysis of Polycystic
Kidney Disease

Examiner: Not Yet Assigned

Group Art Unit: 1645

Conf. No.: 6437



CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8a

I hereby certify that this correspondence (and any paper or fee referred to as being enclosed) is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Box: Sequence, Commissioner for Patents, P.O. Box 2327, Arlington, VA 22202.

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**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS
FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE
AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Sir:

A corrected sequence listing is submitted in response to the Notice to Comply With Requirements For Patent Applications Containing Nucleotide And/Or Amino Acid Sequence Disclosures mailed by the PTO on March 25, 2002.

In the specification, please replace Table 3 on page 36 and Table 4 on page 45 with the following amended tables to reflect the original and newly assigned SEQ ID Nos.:

"Table 3 Examples of useful pkd-1 specific primers"

SEQ ID NO.	Primer Name	Primer Sequence
50	1X1F	5' CGT CGC TCA GCA GCA GGT CG 3'
51	1X1R	5' CGT CCT GCT TCC CGT CCC G 3'
52	1X2F	5' GCG GCC CGC CGC CCC CGC CGT TGG GGA TGC TGG CAA TGT GTG 3'
53	1X2R	5' GGG ATT CGG CAA AGC TGA TG 3'
54	1X3F	5' TTC CAT CAG CTT TGC CGA AT 3'

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55	1X3R	5' ATC TGG TCT CAA GCC TGG AAG 3'
56	1X4F	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CGA GAC CCT TCC CAC CAG ACC T 3'
57	1X4R	5' CGC CCC CGC CCG TGA GCC CTG CCC AGT GTC T 3'
58	1X5AF	5' GCG GCC CGC CGC CCC CGC CGG AGC CAG GAG GAG CAG AAC CC 3'
59	1X5AR	5' CAG AGG GAC AGG CAG GCA AAG G 3'
60	1X5BF	5' GCC CCC GCC GCC CAG CCC TCC AGT GCC T 3'
61	1X5BR	5' ATC GCT ATG TGC TGC CTG GG 3'
62	1X5CF	5' CCG AGG TGG ATG CCG CTG 3'
63	1X5CR	5' GAA GGG GAG TGG GCA GCA GAC 3'
64	1X6F	5' CAC TGA CCG TTG ACA CCC TCG 3'
65	1X6R	5' TGC CCC AGT GCT TCA GAG ATC 3'
66	1X7F	5' GGA GTG CCC TGA GCC CCC T 3'
67	1X7R	5' CCC CTA ACC ACA GCC AGC G 3'
68	1X8F	5' TCT GTT CGT CCT GGT GTC CTG 3'
69	1X8R	5' GCA GGA GGG CAG GTT GTA GAA 3'
70	1X9F	5' GCG GCC CGC CGC CCC CGC CGG GTA GGG GGA GTC TGG GCT T 3'
71	1X9R	5' GAG GCC ACC CCG AGT CC 3'
72	1X10F	5' GTT GGG CAT CTC TGA CGG TG 3'
73	1X10R	5' CGC CGC CCC CGC CCG GGA AGG TGG CCT GAG GAG AT 3'
74	1X11AF	5' GCG GCC CGC CGC CCC CGC CGG GGG TCC ACG GGC CAT G 3'
75	1X11AR	5' AAG CCC AGC AGC ACG GTG AG 3'
76	1X11BF	5' CCG CCG CCC CCG CCG CTG CCC TGC CTG TGC

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		CCT G 3'
77	1X11BR	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CCG TTC CAC CAC CAC GTC CAC CAC 3'
78	1X11CF	5' GTG GTG GAC GTG GTG GTG GAA 3'
79	1X11CR	5' GGC TGC TGC CCT CAC TGG GAA 3'
80	1X12F	5' TAA GGG CAG AGT CCT CCA CAG 3'
81	1X12R	5' CCA CCC CCG CCC ACC TAC TGA G 3'
82	1X13F	5' GCG GCC CGC CGC CCC CGC CGT GGA GGG AGG GAC GCC AAT C 3'
83	1X13R	5' GAG GCT GGG GCT GGG ACA A 3'
84	1X14F	5' CCC GGT TCA CTC ACT GCG 3'
85	1X14R	5' CCC CCG CCC GCC GTG CTC AGA GCC TGA AAG 3'
86	1X15AF	5' GGC GGG GGG CTT CTG CCG AGC GGG TGG GGA GCA GGT GG 3'
87	1X15AR	5' CGC CGC CCC CGC CCG GCT CTG GGT CAG GAC AGG GGA 3'
88	1X15BF	5' CGC CTG GGG GTG TTC TTT 3'
89	1X15BR	5' ACG TGA TGT TGT CGC CCG 3'
90	1X15CF	5' GCC CCC GCC GGG GCG CCC CCG TGG TGG TCA GC 3'
91	1X15CR	5' CAG GCT GCG TGG GGA TGC 3'
92	1X15DF	5' CTG GAG GTG CTG CGC GTT 3'
93	1X15DR	5' CGC CCC CGC CCG CTG GCT CCA CGC AGA TGC 3'
94	1X15EF	5' CGT GAA CAG GGC GCA TTA 3'
95	1X15ER	5' CCC CCG CCC GGC AGC AGA GAT GTT GTT GGA C 3'

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96	1X15FF	5' CCG CCG CCC CCG CCG CCA GGC TCC TAT CTT GTG ACA 3'
97	1X15FR	5' TGA AGT CAC CTG TGC TGT TGT 3'
98	1X15GF	5' CTA CCT GTG GGA TCT GGG G 3'
99	1X15GR	5' TGC TGA AGC TCA CGC TCC 3'
100	1X15HF	5' GGG CTC GTC GTC AAT GCA AG 3'
101	1X15HR	5' CGC CGC CCC CGC CCG CCG CCC ACC ACC TGC AGC CCC TCT A 3'
102	1X15IF	5' GCG GCC CGC CGC CCC CGC CGC CGC CCA GGA CAG CAT CTT C 3'
103	1X15IR	5' CGC TGC CCA GCA TGT TGG 3'
104	1X15JF	5' GGC CGG CAG CGG CAA AGG CTT CTC 3'
105	1X15JR	5' GCC CAG CAC CAG CTC ACA T 3'
106	1X15KF	5' CGA GCC ATT TAC CAC CCA TAG 3'
107	1X15KR	5' GGC AGC CAG CAG GAT CTG AA 3'
108	1X15LF	5' CTG TGG GCC AGC AGC AAG GTG 3'
109	1X15LR	5' CCT GAA CCT CCA GCA CCA GCG 3'
110	1X15MF	5' AGG TCC AGG GCG ACT CGC TGG 3'
111	1X15MR	5' CAG GGC CAC ACG CGC TGG GCG 3'
112	1X15NF	5' TTG GAG GCC CAC GTT GAC CTG 3'
113	1X15NR	5' CCC CCG CCC GCA TGG GTG TGG ACG GGT GAG G 3'
114	1X16F	5' TAA AAC TGG ATG GGG CTC TC 3'
115	1X16R	5' GGC CTC CAC CAG CAC TAA 3'
116	1X17F	5' GGG TCC CCC AGT CCT TCC AG 3'
117	1X17R	5' TCC CCA GCC CGC CCA CA 3'
118	1X18F	5' GCC CCC TCA CCA CCC CTT CT 3'
119	1X18R	5' TCC CGC TGC TCC CCC CAC GCA 3'



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120	1X19F	5' GAT GCC GTG GGG ACC GTC 3'
121	1X19R	5' GTG AGC AGG TGG CAG TCT CG 3'
122	1X20F	5' CCA CCC CCT CTG CTC GTA GGT 3'
123	1X20R	5' GGT CCC AAG CAC GCA TGC A 3'
124	1X21F	5' TGC CGG CCT CCT GCG CTG CTG A 3'
125	1X21R	5' GCG GGC AGG GTG AGC AGG TGG GGC CAT CC 3'
126	1X22F	5' GAG GCT GTG GGG GTC CAG TCA AGT GG 3'
127	1X22R	5' AGG GAG GCA GAG GAA AGG GCC GAA C 3'
128	1X23AF	5' CGT CCC GCC TGC ACT GAC CTC ACG CAT GT 3'
129	1X23AR	5' CGG CCC GCC GCC CCC GCC CGG CCA AAG GGA AAG GGA TTG GA 3'
130	1X23BF	5' CCG CGG AGC CTG CTG TGC TAT 3'
131	1X23BR	5' CCG CCG CCC CCG CCC GCT TGG TGG AGA CGG TGT AGT TGC 3'
132	1X23CF	5' TCC AAT CCC TTT CCC TTT GGC 3'
133	1X23CR	5' CAG CAG CCC ATG AAA CAG AAA G 3'
134	1X24F	5' TAT GCT TTC AGG CCC GTG GCA 3'
135	1X24R	5' AGA GCC CAT ACC CGG TCC AGT CC 3'
136	1X25F	5' GGA CTG GAC CGG GTA TGG GCT CT 3'
137	1X25R	5' CCC CCG CCC GCA CCC AGG CCC TCC TCG ACT C 3'
138	1X26F	5' CCC CCG CCG CTG GGT GGG CTC GGC TCT ATC 3'
139	1X26R	5' TGG TAG CGA TGC TCA CGT CAC TT 3'
140	1X27F	5' CAG GCC AAA GCT GAG ATG ACT TG 3'
141	1X27R	5' AGA GGC GCA GGA GGG AGG TC 3'
142	1X28F	5' CCC TCT GCC CCC GCA TTG 3'

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143	1X28R	5' AAG CGC AAA AGG GCT GCG TCG 3'
144	1X29F	5' GGC CCT CCC TGC CTT CTA GGC G 3
145	1X29R	5' CCG TGC TGT GTG GAG GAG AG 3'
146	1X30F	5' CCT CTT CCT GCC CAG CCC TTC 3'
147	1X30R	5' CTT CCC GAG CAG CCT TTG GTG 3'
148	1X31F	5' CTG AGC TGC CGC CCG CTG AC 3'
149	1X31R	5' AGG ACC CCC AGC CCA GCC CA 3'
150	1X32F	5' CTT GGC GCA GCT TGG ACT 3'
151	1X32R	5' ACA CCC AGC AAG GAC ACG CA 3'
152	1X33F	5' TGT GAC ACA TCC CCT GGT AC 3'
153	1X33R	5' GCA AGG GTG AGC TTC AGA GC 3'
154	1X34F	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CCG ACC CTA TGC CTC CTG TAC CTC 3'
155	1X34R	5' CCC CTC CTC TGG CAA TCC 3'
3	1X35F	5' TGG CTG CAA CTG CCT CCT GG 3'
4	1X35R	5' AAG CAG AGA CAG ACC TGT GAG AG 3'
5	1X36F	5' GCC CCC GCC GCT CTC ACA GGT CTG TCT CTG CTT C 3'
6	1X36R	5' GGC CTG TAG CCT ACC CCT GG 3'
7	1X37F	5' GGA CCC CTC TGA AGC CAC C 3'
8	1X37R	5' GGG AGG TGG GAG ACA AGA GAC 3'
9	1X38F	5' AAA GCC CTG CTG TCA CTG TGG 3'
10	1X38R	5' AAC TAA AGC CCA GAA GAC AGA CC 3'
11	1X39F	5' AAC TGT CTG CCC CAG AAC ATC 3'
12	1X39R	5' CTA AAG GCT GCT CTC TCA ACA AG 3'
13	1X40F	5' ACT CCT GTT GGG TTT TGA TGA G 3'
14	1X40R	5' GAG AAC TAC TCC CTT GTC CTT GG 3'

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15	1X41F	5' ACG CCA AGG ACA AGG GAG TAG TTC 3'
16	1X41R	5' TGG GCT CCT GGC TGG TGA CTG C 3'
17	1X42F	5' GCG GCC CGC CGC CCC CGC CGC TAC TGA CCC GCA CCC TCT G 3'
18	1X42R	5' GCT GCG AGG GGT GAG ACG 3'
19	1X43F	5' GCG GCC CGC CGC CCC CGC CGC GTC CCT CCC GCC CTC CTG ACC 3'
20	1X43R	5' GCC CCC GCC GCT GCG GAC GAG AAA TCT GTC TGC TTG 3'
21	1X44F	5' CAG GGC TGC AAG CAG ACA GA 3'
22	1X44R	5' CTG AGC TAA GAC GCC CTC CC 3'
23	1X45F	5' CTG TAC GCC CTC ACT GGT GTC 3'
24	1X45R	5' GGC ACA GGG GCT CAG TCA GTC 3'
25	1X46AF	5' GGA CTG ACT GAG CCC CTG TGC 3'
26	1X46AR	5' AGT CGG TCA AAC TGG GTG AG 3'
27	1X46BF	5' CAA GGT GTG AGC CTG AGC CC 3'
28	1X46BR	5' CGG TGT CCA CTC CGA CTC CAC 3'

*All primer sequences are denoted in the 5'-3' direction. The first number in the name denotes the PKD gene number (1X15AF). The Letter 'X' signifies the word exon (1X15AF). The third number after the 'X' denotes the exon number (1X15AF). The character after the exon number represents the identity of the exon fragment (1X15AF). The last letter indicates the direction of the primer as either forward or reverse (1X15AFF)."

"Table 4 Examples of useful pkd-2 specific primers"

SEQ ID NO.	Primer Name	Primer Sequence
29	2X1AF	5' CCG CCC CCG CCG CGC GCC GGA CGC CAG TGA CC 3'
156	2X1AR	5' CCT GCC GGG AGC ACG ACG AG 3'

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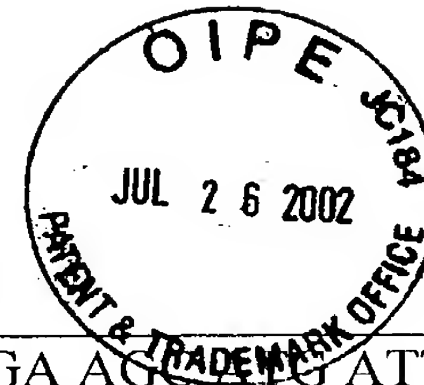
30	2X1BF	5' GCC CCC GCC GCC GCG GCC TCC CCT TCT CCT 3'
157	2X1BR	5' CTG GGC TGG GGC ACG GCG GG 3'
158	2X1CF	5' GGG GGC TAC CAC GGC GCG GGC 3'
31	2X1CR	5' CGG CCC GCC GCC CCC GCC CGC GGC CGT T GGT TCG TGC ATC TG 3'
32	2X2F	5' GCC CCC GCC GAA ATG ATA TCT TTT C TTC TTC A 3'
33	2X2R	5' CCC CCG CCC GAA CTT TCC CAT TAG TGC A 3'
159	2X3F	5' TTG GGG CGT TCA TTT GGA TC 3'
34	2X3R	5' CGC CGC CCC CGC CCG TGT GAT AGA GAG C CTT TCA 3'
35	2X4F	5' CCG CCG CCC CCG CCG CTT TTT CAA AGA T TTC CTT TGC 3'
36	2X4R	5' TAT CAC CGA GTG CCA ATG AG 3'
37	2X5F	5' CCG CCG CCC CCG CCG GCC TCA AGT GTT C CTG AT 3'
160	2X5R	5' ACC ACA CAG AAA TAG GAG GG 3'
161	2X6F	5' TTG TTA TTG TTT TAA TTG TTC TTA 3'
38	2X6R	5' CCC CCG CCC GTT GTA GAA TAG AAT AGG A TTT GG 3'
39	2X7F	5' GCC CCC GCC GTT GGT GAA GAA AAA TAT A AGT CA 3'
40	2X7R	5' CGC CGC CCC CGC CCG TGG AAC TCA TTT T TTA AAG A 3'
41	2X8F	5' GCG GGG GCG GCG GGC CGT TTT ATT ATA C AGT CAC ACC 3'
162	2X8R	5' CTA CTC TGA CTA AAT TTT TCT TCT T 3'
163	2X9F	5' TTT GGT TTT GTA TTG TGG TG 3'
164	2X9R	5' AAG GAT TTA CGA AGT TTA AAT TG 3'
42	2X10F	5' GCC CCC GCC GCT TCC TTT AAT TTT TGC CC 3'
43	2X10R	5' CGC CGC CCC CGC CCG GAA ACA ATG CTC A TTA TGT CAG 3'
44	2X11F	5' CCG CCG CCC CCG CCG AAA CCA AGT CTT T TTT TTT CTC 3'

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165	2X11R	5' AGA ACC TCA GGA AGC ATT 3'
45	2X12F	5' CCG CCG CCC CCG CCG GAT GAA TGT TAT C TAT CCT CTC 3'
166	2X12R	5' TAG GTA CCA AAT CAA ATC CG 3'
167	2X13F	5' GTC TCA GTG TTC TGC TCC TC 3'
46	2X13R	5' CGC CGC CCC CGC CCG GCA AAT TCT GCC A TCC TTT A 3'
47	2X14F	5' GCC CCC GCC GTT TGT CCC TCT GTA CTG TG 3'
168	2X14R	5' AAA TAC AAC TGT CAG CAA CAT A 3'
48	2X15F	5' CCG CCC CCG CCG TGA CCC CCA ACA CCA G TC 3'
49	2X15R	5' CGG CCC GCC GCC CCC GCC CGG GAC AGC C TTC CTC ACT T 3'


*All primer sequences are denoted in the 5'-3' direction. The first number in the name denotes the PKD gene number (2X15R). The Letter 'X' signifies the word exon (2X15R). The third number after the 'X' denotes the exon number (2X15R). The last letter indicates the direction of the primer as either forward or reverse (2X15R)."

Marked-up sheets showing the amendment are attached.

Applicants, in compliance with 37 C.F.R. 1.821(f), hereby state that the information recorded in computer readable form submitted herewith is identical to the written sequence listing. Applicants, in compliance with 37 C.F.R. 1.821(g), further state that no new matter is added.

Respectfully submitted,

Date: July 23, 2002


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Marked up sheets showing the amendment:

Table 3 Examples of useful pkd-1 specific primers*

SEQ ID NO.	Primer Name	Primer Sequence
<u>156</u>	1X1F	5' CGT CGC TCA GCA GCA GGT CG 3'
<u>157</u>	1X1R	5' CGT CCT GCT TCC CGT CCC G 3'
<u>158</u>	1X2F	5' GCG GCC CGC CGC CCC CGC CGT TGG GGA TGC TGG CAA TGT GTG 3'
<u>159</u>	1X2R	5' GGG ATT CGG CAA AGC TGA TG 3'
<u>160</u>	1X3F	5' TTC CAT CAG CTT TGC CGA AT 3'
<u>161</u>	1X3R	5' ATC TGG TCT CAA GCC TGG AAG 3'
<u>162</u>	1X4F	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CGA GAC CCT TCC CAC CAG ACC T 3'
<u>163</u>	1X4R	5' CGC CCC CGC CCG TGA GCC CTG CCC AGT GTC T 3'
<u>164</u>	1X5AF	5' GCG GCC CGC CGC CCC CGC CGG AGC CAG GAG GAG CAG AAC CC 3'
<u>165</u>	1X5AR	5' CAG AGG GAC AGG CAG GCA AAG G 3'
<u>166</u>	1X5BF	5' GCC CCC GCC GCC CAG CCC TCC AGT GCC T 3'
<u>167</u>	1X5BR	5' ATC GCT ATG TGC TGC CTG GG 3'
<u>168</u>	1X5CF	5' CCG AGG TGG ATG CCG CTG 3'
<u>169</u>	1X5CR	5' GAA GGG GAG TGG GCA GCA GAC 3'
<u>170</u>	1X6F	5' CAC TGA CCG TTG ACA CCC TCG 3'
<u>171</u>	1X6R	5' TGC CCC AGT GCT TCA GAG ATC 3'
<u>172</u>	1X7F	5' GGA GTG CCC TGA GCC CCC T 3'
<u>173</u>	1X7R	5' CCC CTA ACC ACA GCC AGC G 3'
<u>174</u>	1X8F	5' TCT GTT CGT CCT GGT GTC CTG 3'
<u>175</u>	1X8R	5' GCA GGA GGG CAG GTT GTA GAA 3'
<u>176</u>	1X9F	5' GCG GCC CGC CGC CCC CGC CGG GTA GGG



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		GGA GTC TGG GCT T 3'
<u>177</u>	1X9R	5' GAG GCC ACC CCG AGT CC 3'
<u>178</u>	1X10F	5' GTT GGG CAT CTC TGA CGG TG 3'
<u>179</u>	1X10R	5' CGC CGC CCC CGC CCG GGA AGG TGG CCT GAG GAG AT 3'
<u>180</u>	1X11AF	5' GCG GCC CGC CGC CCC CGC CGG GGG TCC ACG GGC CAT G 3'
<u>181</u>	1X11AR	5' AAG CCC AGC AGC ACG GTG AG 3'
<u>182</u>	1X11BF	5' CCG CCG CCC CCG CCG CTG CCC TGC CTG TGC CCT G 3'
<u>183</u>	1X11BR	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CCG TTC CAC CAC CAC GTC CAC CAC 3'
<u>184</u>	1X11CF	5' GTG GTG GAC GTG GTG GTG GAA 3'
<u>185</u>	1X11CR	5' GGC TGC TGC CCT CAC TGG GAA 3'
<u>186</u>	1X12F	5' TAA GGG CAG AGT CCT CCA CAG 3'
<u>187</u>	1X12R	5' CCA CCC CCG CCC ACC TAC TGA G 3'
<u>188</u>	1X13F	5' GCG GCC CGC CGC CCC CGC CGT GGA GGG AGG GAC GCC AAT C 3'
<u>189</u>	1X13R	5' GAG GCT GGG GCT GGG ACA A 3'
<u>190</u>	1X14F	5' CCC GGT TCA CTC ACT GCG 3'
<u>191</u>	1X14R	5' CCC CCG CCC GCC GTG CTC AGA GCC TGA AAG 3'
<u>192</u>	1X15AF	5' GGC GGG GGG CTT CTG CCG AGC GGG TGG GGA GCA GGT GG 3'
<u>193</u>	1X15AR	5' CGC CGC CCC CGC CCG GCT CTG GGT CAG GAC AGG GGA 3'
<u>194</u>	1X15BF	5' CGC CTG GGG GTG TTC TTT 3'
<u>195</u>	1X15BR	5' ACG TGA TGT TGT CGC CCG 3'



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<u>196</u>	1X15CF	5' GCC CCC GCC GGG GCG CCC CCG TGG TGG TCA GC 3'
<u>197</u>	1X15CR	5' CAG GCT GCG TGG GGA TGC 3'
<u>198</u>	1X15DF	5' CTG GAG GTG CTG CGC GTT 3'
<u>199</u>	1X15DR	5' CGC CCC CGC CCG CTG GCT CCA CGC AGA TGC 3'
<u>200</u>	1X15EF	5' CGT GAA CAG GGC GCA TTA 3'
<u>201</u>	1X15ER	5' CCC CCG CCC GGC AGC AGA GAT GTT GTT GGA C 3'
<u>202</u>	1X15FF	5' CCG CCG CCC CCG CCG CCA GGC TCC TAT CTT GTG ACA 3'
<u>203</u>	1X15FR	5' TGA AGT CAC CTG TGC TGT TGT 3'
<u>204</u>	1X15GF	5' CTA CCT GTG GGA TCT GGG G 3'
<u>205</u>	1X15GR	5' TGC TGA AGC TCA CGC TCC 3'
<u>206</u>	1X15HF	5' GGG CTC GTC GTC AAT GCA AG 3'
<u>207</u>	1X15HR	5' CGC CGC CCC CGC CCG CCG CCC ACC ACC TGC AGC CCC TCT A 3'
<u>208</u>	1X15IF	5' GCG GCC CGC CGC CCC CGC CGC CGC CCA GGA CAG CAT CTT C 3'
<u>209</u>	1X15IR	5' CGC TGC CCA GCA TGT TGG 3'
<u>210</u>	1X15JF	5' GGC CGG CAG CGG CAA AGG CTT CTC 3'
<u>211</u>	1X15JR	5' GCC CAG CAC CAG CTC ACA T 3'
<u>212</u>	1X15KF	5' CGA GCC ATT TAC CAC CCA TAG 3'
<u>213</u>	1X15KR	5' GGC AGC CAG CAG GAT CTG AA 3'
<u>214</u>	1X15LF	5' CTG TGG GCC AGC AGC AAG GTG 3'
<u>215</u>	1X15LR	5' CCT GAA CCT CCA GCA CCA GCG 3'
<u>216</u>	1X15MF	5' AGG TCC AGG GCG ACT CGC TGG 3'
<u>217</u>	1X15MR	5' CAG GGC CAC ACG CGC TGG GCG 3'

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<u>218</u>	1X15NF	5' TTG GAG GCC CAC GTT GAC CTG 3'
<u>219</u>	1X15NR	5' CCC CCG CCC GCA TGG GTG TGG ACG GGT GAG G 3'
<u>220</u>	1X16F	5' TAA AAC TGG ATG GGG CTC TC 3'
<u>221</u>	1X16R	5' GGC CTC CAC CAG CAC TAA 3'
<u>222</u>	1X17F	5' GGG TCC CCC AGT CCT TCC AG 3'
<u>223</u>	1X17R	5' TCC CCA GCC CGC CCA CA 3'
<u>224</u>	1X18F	5' GCC CCC TCA CCA CCC CTT CT 3'
<u>225</u>	1X18R	5' TCC CGC TGC TCC CCC CAC GCA 3'
<u>226</u>	1X19F	5' GAT GCC GTG GGG ACC GTC 3'
<u>227</u>	1X19R	5' GTG AGC AGG TGG CAG TCT CG 3'
<u>228</u>	1X20F	5' CCA CCC CCT CTG CTC GTA GGT 3'
<u>229</u>	1X20R	5' GGT CCC AAG CAC GCA TGC A 3'
<u>230</u>	1X21F	5' TGC CGG CCT CCT GCG CTG CTG A 3'
<u>231</u>	1X21R	5' GCG GGC AGG GTG AGC AGG TGG GGC CAT CC 3'
<u>232</u>	1X22F	5' GAG GCT GTG GGG GTC CAG TCA AGT GG 3'
<u>233</u>	1X22R	5' AGG GAG GCA GAG GAA AGG GCC GAA C 3'
<u>234</u>	1X23AF	5' CGT CCC GCC TGC ACT GAC CTC ACG CAT GT 3'
<u>235</u>	1X23AR	5' CGG CCC GCC GCC CCC GCC CGG CCA AAG GGA AAG GGA TTG GA 3'
<u>236</u>	1X23BF	5' CCG CGG AGC CTG CTG TGC TAT 3'
<u>237</u>	1X23BR	5' CCG CCG CCC CCG CCC GCT TGG TGG AGA CGG TGT AGT TGC 3'
<u>238</u>	1X23CF	5' TCC AAT CCC TTT CCC TTT GGC 3'
<u>239</u>	1X23CR	5' CAG CAG CCC ATG AAA CAG AAA G 3'
<u>240</u>	1X24F	5' TAT GCT TTC AGG CCC GTG GCA 3'
<u>241</u>	1X24R	5' AGA GCC CAT ACC CGG TCC AGT CC 3'

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<u>242</u>	1X25F	5' GGA CTG GAC CGG GTA TGG GCT CT 3'
<u>243</u>	1X25R	5' CCC CCG CCC GCA CCC AGG CCC TCC TCG ACT C 3'
<u>244</u>	1X26F	5' CCC CCG CCG CTG GGT GGG CTC GGC TCT ATC 3'
<u>245</u>	1X26R	5' TGG TAG CGA TGC TCA CGT CAC TT 3'
<u>246</u>	1X27F	5' CAG GCC AAA GCT GAG ATG ACT TG 3'
<u>247</u>	1X27R	5' AGA GGC GCA GGA GGG AGG TC 3'
<u>248</u>	1X28F	5' CCC TCT GCC CCC GCA TTG 3'
<u>249</u>	1X28R	5' AAG CGC AAA AGG GCT GCG TCG 3'
<u>250</u>	1X29F	5' GGC CCT CCC TGC CTT CTA GGC G 3
<u>251</u>	1X29R	5' CCG TGC TGT GTG GAG GAG AG 3'
<u>252</u>	1X30F	5' CCT CTT CCT GCC CAG CCC TTC 3'
<u>253</u>	1X30R	5' CTT CCC GAG CAG CCT TTG GTG 3'
<u>254</u>	1X31F	5' CTG AGC TGC CGC CCG CTG AC 3'
<u>255</u>	1X31R	5' AGG ACC CCC AGC CCA GCC CA 3'
<u>256</u>	1X32F	5' CTT GGC GCA GCT TGG ACT 3'
<u>257</u>	1X32R	5' ACA CCC AGC AAG GAC ACG CA 3'
<u>258</u>	1X33F	5' TGT GAC ACA TCC CCT GGT AC 3'
<u>259</u>	1X33R	5' GCA AGG GTG AGC TTC AGA GC 3'
<u>260</u>	1X34F	5' GCC CCG CGC CCG TCC CGC CGC CCC CGC CCG ACC CTA TGC CTC CTG TAC CTC 3'
<u>261</u>	1X34R	5' CCC CTC CTC TGG CAA TCC 3'
3	1X35F	5' TGG CTG CAA CTG CCT CCT GG 3'
4	1X35R	5' AAG CAG AGA CAG ACC TGT GAG AG 3'
5	1X36F	5' GCC CCC GCC GCT CTC ACA GGT CTG TCT CTG CTT C 3'
6	1X36R	5' GGC CTG TAG CCT ACC CCT GG 3'



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7	1X37F	5' GGA CCC CTC TGA AGC CAC C 3'
8	1X37R	5' GGG AGG TGG GAG ACA AGA GAC 3'
9	1X38F	5' AAA GCC CTG CTG TCA CTG TGG 3'
10	1X38R	5' AAC TAA AGC CCA GAA GAC AGA CC 3'
11	1X39F	5' AAC TGT CTG CCC CAG AAC ATC 3'
12	1X39R	5' CTA AAG GCT GCT CTC TCA ACA AG 3'
13	1X40F	5' ACT CCT GTT GGG TTT TGA TGA G 3'
14	1X40R	5' GAG AAC TAC TCC CTT GTC CTT GG 3'
15	1X41F	5' ACG CCA AGG ACA AGG GAG TAG TTC 3'
16	1X41R	5' TGG GCT CCT GGC TGG TGA CTG C 3'
17	1X42F	5' GCG GCC CGC CGC CCC CGC CGC TAC TGA CCC GCA CCC TCT G 3'
18	1X42R	5' GCT GCG AGG GGT GAG ACG 3'
19	1X43F	5' GCG GCC CGC CGC CCC CGC CGC GTC CCT CCC GCC CTC CTG ACC 3'
20	1X43R	5' GCC CCC GCC GCT GCG GAC GAG AAA TCT GTC TGC TTG 3'
21	1X44F	5' CAG GGC TGC AAG CAG ACA GA 3'
22	1X44R	5' CTG AGC TAA GAC GCC CTC CC 3'
23	1X45F	5' CTG TAC GCC CTC ACT GGT GTC 3'
24	1X45R	5' GGC ACA GGG GCT CAG TCA GTC 3'
25	1X46AF	5' GGA CTG ACT GAG CCC CTG TGC 3'
26	1X46AR	5' AGT CGG TCA AAC TGG GTG AG 3'
27	1X46BF	5' CAA GGT GTG AGC CTG AGC CC 3'
28	1X46BR	5' CGG TGT CCA CTC CGA CTC CAC 3'

*All primer sequences are denoted in the 5'-3' direction. The first number in the name denotes the PKD gene number (1X15AF). The Letter 'X' signifies the word exon (1X15AF). The third number after the 'X' denotes the exon number (1X15AF). The character after the exon

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number represents the identity of the exon fragment (1X15AF). The last letter indicates the direction of the primer as either forward or reverse (1X15AF).

Table 4 Examples of useful pkd-2 specific primers*

SEQ ID NO.	Primer Name	Primer Sequence
29	2X1AF	5' CCG CCC CCG CCG CGC GCC GGA CGC CAG TGA CC 3'
<u>156</u>	2X1AR	5' CCT GCC GGG AGC ACG ACG AG 3'
30	2X1BF	5' GCC CCC GCC GCC GCG GCC TCC CCT TCT CCT 3'
<u>157</u>	2X1BR	5' CTG GGC TGG GGC ACG GCG GG 3'
<u>158</u>	2X1CF	5' GGG GGC TAC CAC GGC GCG GGC 3'
31	2X1CR	5' CGG CCC GCC GCC CCC GCC CGC GGC CGT T GGT TCG TGC ATC TG 3'
32	2X2F	5' GCC CCC GCC GAA ATG ATA TCT TTT C TTC TTC A 3'
33	2X2R	5' CCC CCG CCC GAA CTT TCC CAT TAG TGC A 3'
<u>159</u>	2X3F	5' TTG GGG CGT TCA TTT GGA TC 3'
34	2X3R	5' CGC CGC CCC CGC CCG TGT GAT AGA GAG C CTT TCA 3'
35	2X4F	5' CCG CCG CCC CCG CCG CTT TTT CAA AGA T TTC CTT TGC 3'
36	2X4R	5' TAT CAC CGA GTG CCA ATG AG 3'
37	2X5F	5' CCG CCG CCC CCG CCG GCC TCA AGT GTT C CTG AT 3'
<u>160</u>	2X5R	5' ACC ACA CAG AAA TAG GAG GG 3'
<u>161</u>	2X6F	5' TTG TTA TTG TTT TAA TTG TTC TTA 3'
38	2X6R	5' CCC CCG CCC GTT GTA GAA TAG AAT AGG A TTT GG 3'
39	2X7F	5' GCC CCC GCC GTT GGT GAA GAA AAA TAT A AGT CA 3'
40	2X7R	5' CGC CGC CCC CGC CCG TGG AAC TCA TTT T TTA AAG A 3'
41	2X8F	5' GCG GGG GCG GCG GGC CGT TTT ATT ATA C AGT CAC ACC 3'
<u>162</u>	2X8R	5' CTA CTC TGA CTA AAT TTT TCT TCT T 3'

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<u>163</u>	2X9F	5' TTT GGT TTT GTA TTG TGG TG 3'
<u>164</u>	2X9R	5' AAG GAT TTA CGA AGT TTA AAT TG 3'
42	2X10F	5' GCC CCC GCC GCT TCC TTT AAT TTT TGC CC 3'
43	2X10R	5' CGC CGC CCC CGC CCG GAA ACA ATG CTC A TTA TGT CAG 3'
44	2X11F	5' CCG CCG CCC CCG CCG AAA CCA AGT CTT T TTT TTT CTC 3'
<u>165</u>	2X11R	5' AGA ACC TCA GGA AGC ATG ATT 3'
45	2X12F	5' CCG CCG CCC CCG CCG GAT GAA TGT TAT C TAT CCT CTC 3'
<u>166</u>	2X12R	5' TAG GTA CCA AAT CAA ATC CG 3'
<u>167</u>	2X13F	5' GTC TCA GTG TTC TGC TCC TC 3'
46	2X13R	5' CGC CGC CCC CGC CCG GCA AAT TCT GCC A TCC TTT A 3'
47	2X14F	5' GCC CCC GCC GTT TGT CCC TCT GTA CTG TG 3'
<u>168</u>	2X14R	5' AAA TAC AAC TGT CAG CAA CAT A 3'
48	2X15F	5' CCG CCC CCG CCG TGA CCC CCA ACA CCA G TC 3'
49	2X15R	5' CGG CCC GCC GCC CCC GCC CGG GAC AGC C TTC CTC ACT T 3'

*All primer sequences are denoted in the 5'-3' direction. The first number in the name denotes the PKD gene number (2X15R). The Letter 'X' signifies the word exon (2X15R). The third number after the 'X' denotes the exon number (2X15R). The last letter indicates the direction of the primer as either forward or reverse (2X15R).